DOCUMENT RESUME

ED 201 251 HE 013 728

AUTHOR Hoffman, Benjamin B.
TITLE The First Six Months: PDEM Innovations in Forecasting Higher Education, January to July 1972.
INSTITUTION Manitoba Post-Secondary Research Reference Committee.
PUB DATE 81
NOTE 19p.: Appended document is entitled "Objectives and Target Groups: PDEM-II," October 6, 1975.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Academic Aspiration; Career Planning; *College Bound Students; *College Choice; *Educational Demand; Enrollment Influences; *Enrollment Projections; Financial Needs; Foreign Countries; Grade Point Average; Higher Education; High School Seniors; Majors (Students); Models; *Noncollege Bound Students; Occupational Aspiration; Parent Influence; Postsecondary Education; *Prediction; Student Adjustment; Student Educational Objectives
IDENTIFIERS Canada; *Manitoba

ABSTRACT

A Postsecondary Demand Survey was undertaken in 1972 to study the demand for postsecondary education in Manitoba, Canada, and to develop a system for forecasting enrollment at postsecondary institutions. The survey objective was to establish a profile of grade 12 students in 1972 to learn about their aspirations, plans, expectations after graduation, and about their preferences for postsecondary institutions and programs; and to analyze the influence of their academic standing, financial situation, high school environment, family and friends on their current decisions and future plans. A quantitative model was developed to forecast postsecondary enrollment by institution, faculty, and program. Four main factors are used in the forecasting model: motivation for higher education, other plans after graduation, academic standing, and financial status. Based on the estimated values of the four influencing factors, a decision model allocates the student population to five groups: going, not going, in doubt, undecided, and going-impacted. The in doubt, undecided, and going-impacted groups are reassigned to the going and not going categories, and the going category is allocated to first, second, third choice institutions and programs. The model also uses linear programming techniques to allocate students to institutions, faculties, and programs. The objective of this allocation is to maximize student satisfaction in their choice of institution/program. Advantages and limitations of the model are considered, and appended materials include a sample survey and a list of objectives and target groups of the demand and enrollment model. (SW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED201251

THE FIRST SIX MONTHS

PDEM INNOVATIONS IN FORECASTING HIGHER EDUCATION

JANUARY TO JULY 1972

BY

Benjamin B. Hoffman
(Director - Co-ordinator)

Principal Researchers

Dale Beckman
Tom Majors

HE 013728

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Benjamin B. Hoffman

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

THE POST SECONDARY DEMAND SURVEY AND STUDY - 1972.

The Post Secondary Demand Survey was launched in the spring of 1972 on the request of the Universities Grants Commission. The main purpose of the survey was to study the demand for post-secondary education in Manitoba and to develop a system for forecasting enrolment at post-secondary institutions.

The survey started with the selection of a stratified random sample of 3000 "grade 12" students from 57 high-schools. The interviews with students were conducted in three stages, as follows:

(a) during February and March the participants filled out detailed questionnaires under the supervision of their teachers. Based on the answers given, the sample was broken down into four groups: "going"; "not going"; "undecided"; and "going-impacted".

(b) in late April and early May, the students in the "undecided" and "going-impacted" groups were interviewed again, using a revised questionnaire. The purpose of these interviews was to obtain more up-to-date information on their plans and circumstances.

(c) finally, a short questionnaire was mailed to 300 students in the "going" category in order to confirm whether their choice of institutions and programmes remained unchanged.

The method of analysis for the three stages of the survey was identical: the data of the questionnaires were checked, key-punched; then processed and tabulated by computer. Basic statistics were calculated for selected breakdowns and the interrelationships among the variables were analysed using rank correlation methods; multiple regression and correlation analysis; factor analysis and selected statistical inference tests.

The purpose of the analysis was to establish a "profile" of grade 12 students in 1972; namely, to learn about their aspirations, plans, expectations after graduation; about their preferences for post-secondary institutions and programmes; and to analyse the influence of their academic standing; financial situation; socio-economic background; high-school environment; families; friends etc. on their future plans and current decisions.

In the next phase of the project a quantitative model has been developed to forecase post-secondary enrolment by institution, faculty and programme. There are three groups of basic variables used in the model:

(a) The findings of the Post Secondary Demand Survey Study;

(b) Historical series for enrolment by institution, faculty and programme; population statistics; selected economic variables.

(c) Decisions made by government agencies and post-secondary institutions regarding admittance requirements and quotas. Existing restrictions in available space and accommodations.

The model consists of three major sections as follows:

PART I: The role of this section is to forecast demand for post-secondary education. Four main factors are used in the forecasting model, based on the findings of the study. These are:

- motivation for higher education;
- other plans after graduation;
- academic standing;
- financial status.

Each of these factors is defined by a separate regression model based on its interrelationship with other basic variables. Motivation, for example, is defined as an index dependent on the student's aspirations; on the parents' education; on the strong influence of others (friends, family); and on changes in employment opportunities.

Based on the estimated values of the four influencing factors, the student population is allocated by a decision model to five groups: "going"; "not going"; "in doubt"; "undecided"; and "going-impacted".

PART II: In Part II the "in doubt", "undecided" and "going-impacted" groups are re-assigned to the "going" and "not going" categories. This allocation is based on the results of the second survey in which new information has been obtained on the plans of the students in question. An estimate for students entering post-secondary educational institutions from other than grade 12 sources is also added to the "going" category.

Finally, the "going" category is allocated to first, second, third choice institutions and programmes; using the conclusions of the study.

PART III: The last part of the model uses linear programming techniques to allocate students to institutions, faculties and programmes.

The objective of this allocation is to maximize student satisfaction, i.e. to assign students to institutions and programmes according to the order of priorities established by their first, second, third choices.

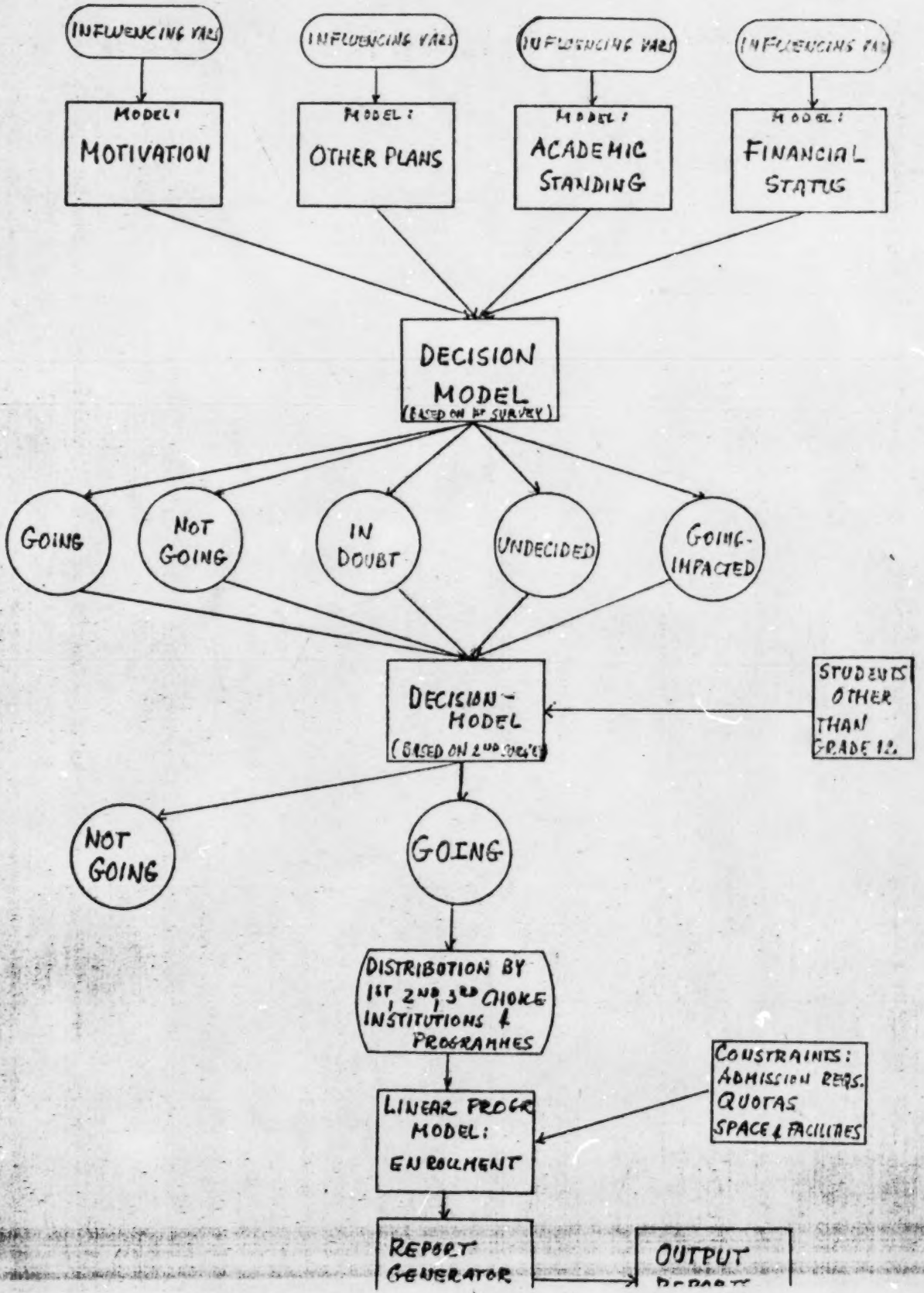
This allocation is done subject to the following constraints:

(a) academic standards for admission;

(b) "quotas" set by government agencies and post-secondary institutions;

(c) physical constraints of available space and facilities.

MODEL.


INFLUENCING VARS
INFLUENCING VARS
INFLUENCING VARS
INFLUENCING VARS
MODEL: MOTIVATION
MODEL: OTHER PLANS
MODEL: ACADEMIC STANDING
MODEL: FINANCIAL STATUS
DECISION MODEL (BASED ON 1ST SURVEY)
GOING
NOT GOING
IN DOUBT
UNDECIDED
GOING-IMPACTED
DECISION-MODEL (BASED ON 2ND SURVEY)
STUDENTS OTHER THAN GRADE 12.
NOT GOING
GOING
DISTRIBUTION BY 1ST, 2ND, 3RD CHOICE INSTITUTIONS & PROGRAMMES
CONSTRAINTS: ADMISSION REQS. QUOTAS SPACE & FACILITIES
LINEAR PROG. MODEL: ENROLMENT
REPORT GENERATOR
OUTPUT

The output of the model shows the estimated enrolment by institution, faculty and programme; the "surplus" of students who were not accepted in their first, second or third choice institutions and programmes; and the "shortfall" in expected enrolment, - also by institution and programme-, indicating inadequate number of applicants.

A systematic analysis of the demand for post-secondary educations vs. the "supply" given by the constraints may prove useful in planning the future courses of post-secondary education.

Limitations:

(a) The model is based on one year's information and its stability, consistency and predictive accuracy cannot be tested at this time under the conditions of continuing updating as historical data of similar nature are not available.

(b) The information given in the Post Secondary Demand Survey represents plans and intentions of grade 12 students. The existence of a close connection between plans and action is very probable, however, it is not proved at this point. The validation of the model would be greatly helped by a follow-up survey during the fall.

(c) Estimates for students entering post-secondary education from other than grade 12 sources are based on incomplete information.

Advantages:

(a) The model identifies significant variables that influence enrolment; and quantifies their interrelationships. Its use will likely lead to a better understanding of the underlying reasons for current changes in post-secondary enrolment.

(b) The model would replace simple "guesses" as forecasting and planning tools by systematic analysis and would serve as a basis for improving forecasting accuracy from year to year. It would also offer a clear quantitative assessment of student demand vs. supply by post-secondary institution, by faculty and by programme. The use of the model could lead to significant improvements in the quality and efficiency of planning.

PRESENTATION OF THE RESULTS.

The results of the survey and of the study are planned to be presented to the Universities Grants Commission in the last week of June.

This presentation will include:

(a) The highlights of findings of the Post Secondary Demand Survey and Study;

(b) A description of the Forecasting Model;

(c) Forecasts for post-secondary enrolments in the 1972-73 academic year;

(d) Computer output. (A large part of this voluminous output has been submitted to the UGC by April 15 and May 10, respectively.)

The final report on the "Profile of Grade 12 Students in 1972" is expected to be issued before the end of the summer.

Background:

The conceptual breakthrough behind the Post-Secondary Demand and Enrollment Models developed in Manitoba, Canada came while the author was a Research Associate at the Ontario Institute For Studies In Education. In particular his conceptual work on the O.I.S.E. project, School Structures and Socialization Outcomes, offered the opportunity to explore current thinking on both short and long term changes in decisions as a result of influences and impact events. The work of Ithiele Sola Pool as described in Candidates, Issues and Strategies, Pool, Abelson and Popkin, MIT Press, Cambridge, Mass., 1964. was of considerable influence in conceptualizing a methodology for short term changes away from the student's stated plans.

To summarize the problem facing the author's approach, it was to reduce the wide gap between the student's stated plans and the actual outcomes of those plans so that a one to three year forecast might become feasible. Research on this area in North America had given up the effort due to the wide gap separating plans and outcome which appeared as large as thrity percent.

The answer came, in part, with the author's identification of the profile grouping, "Going Impacted" who had definite plans for continuing their education but realized their plans at about the fourty percent level. Much of the explanation for such a gap is found in the poor information on the financial ways and means to pathways. The "Impact Events" created by the author and appearing in their original unvalidated form on page three of the 1972 Twelfth Grade Survey, combined with a "motivation index" created by Dr. T. Major, and other influencing variables to achieve a successful forecast. Forecasting error for the first years was at the .2 percent level. with very high internal consistency.

REFERENCES

Hoffman, B., Post-Secondary Demand Study: Proposed Methodology, (Synopsis) Presentation to Manitoba's Educational Leadership, University of Winnipeg, Board Room, December 9, 1971.

Hoffman, B., Minutes of the University Grants Commission, "Planning Officer's Report" Post-Secondary Demand Study conceptual work nears completion, October and November 1971.

Hoffman, B. "Planning", Charter VIII, The Annual Report of The University Grants Commission, March 31, 1972 and March 31, 1973, page 27.

Hoffman, B., Profile of Grade Twelve Students in Manitoba, February, May and June, 1972; Data Clearing House for the Social Sciences, 1972 page 376.

Hoffman, B. "Student Decision On Post-Secondary: The Manitoba Experience", Educational Planning, Vol.1, No. 2, October, 1974 pages 80 to 92.

Major, T.S. The Profile of Grade Twelve Students in Manitoba, 1972 and 1973, 2 volumes June 1975, 113 pages and 75 pages.

Major, T.S. Validation of the Results of the Grade 12 Student Profile Studies, 1 Vol. December 1974, 77 pages.

Major, T.S. PDEM -1, A Quantitative Model for Forecasting Post-Secondary Demand and Enrolment, Volume 4, December 1974, 144 pages.

77-00888 Profile of grade twelve students in Manitoba, February 1972

PRINC. INVES./CHERCHEUR PRINC.:	Hoffman, Ben Nykoluk, Jim Yakymyshyn, M.P. Beckman, Dale
ORGANIZATION/ORGANISATION:	Manitoba Post-Secondary Research Reference Committee
GEO. UNIVERSE/UNIVERS GÉOG.:	Manitoba
POP. CHARAC./CARACT. DE POP.:	Grade 12 students
CASE UNIT/UNITÉ D'ANALYSE:	Individuals
SAMPLE SIZE/TAILLE ÉCHANT.:	2511
TIME SPAN/PÉRIODE:	From February 1972 through March 1972
LOCATION/LOCALISATION:	Post-Secondary Research Reference Committee, Province of Manitoba
AVAILABILITY/DISPONIBILITÉ:	On a restricted basis: availability determined on the basis of individual research proposal submitted in writing to the Post-Secondary Research Reference Committee.

SUMMARY/RÉSUMÉ: This data file relates to a post-secondary demand and enrolment study initiated by the Universities Grants Commission of the Province of Manitoba to obtain information on the profile, intentions, plans and aspirations of grade 12 students graduating in 1972. These data were collected in the main survey of a stratified random sample of 3,000 students. Main variables include plans for continuing education, timing and alternatives; factors influencing plans; anticipated impact of various events on plans; occupational choice; financing of continuing education; background information about respondent.

INDEX TERMS/TERMES-INDEX: Manitoba
Secondary school students Etudiants, école secondaire
Education plans Projets d'éducation Educational funding
Financement des études Students' aspirations
Aspirations des étudiants Occupational choice
Choix d'une profession Aspirations

77-00889 Profile of grade twelve students in Manitoba, May 1972

PRINC. INVES./CHERCHEUR PRINC.:	Hoffman, Ben Nykoluk, Jim Yakymyshyn, M.P. Beckman, Dale
ORGANIZATION/ORGANISATION:	Manitoba Post-Secondary Research Reference Committee
GEO. UNIVERSE/UNIVERS GÉOG.:	Manitoba
POP. CHARAC./CARACT. DE POP.:	Grade 12 students
CASE UNIT/UNITÉ D'ANALYSE:	Individuals
SAMPLE SIZE/TAILLE ÉCHANT.:	660
TIME SPAN/PÉRIODE:	May 1972
LOCATION/LOCALISATION:	Post-Secondary Research Reference Committee, Province of Manitoba
AVAILABILITY/DISPONIBILITÉ:	On a restricted basis: availability determined on the basis of individual research proposal submitted in writing to the Post-Secondary Research Reference Committee.

SUMMARY/RÉSUMÉ: This data file relates to a post-secondary demand and enrolment study initiated by the University Grants Commission of the Province of Manitoba to obtain information on the profile, intentions, plans and aspirations of grade 12 students graduating in 1972. These data were collected on a random sample of 306 students selected from respondents to the February survey who had definite plans to continue their education, for the purpose of determining whether the students' choices of institutions, faculties and programmes had changed.

INDEX TERMS/TERMES-INDEX: Manitoba
Secondary school students Etudiants, école secondaire
Education plans Projets d'éducation Students' aspirations
Aspirations des étudiants Aspirations

77-00890 Profile of grade twelve students in Manitoba, June 1972

PRINC. INVES./CHERCHEUR PRINC.:	Hoffman, Ben Nykoluk, Jim Yakymyshyn, M.P. Beckman, Dale
ORGANIZATION/ORGANISATION:	Manitoba Post-Secondary Research Reference Committee
GEO. UNIVERSE/UNIVERS GÉOG.:	Manitoba
POP. CHARAC./CARACT. DE POP.:	Grade 12 students
CASE UNIT/UNITÉ D'ANALYSE:	Individuals
SAMPLE SIZE/TAILLE ÉCHANT.:	282
TIME SPAN/PÉRIODE:	June 1972
LOCATION/LOCALISATION:	Post-Secondary Research Reference Committee, Province of Manitoba
AVAILABILITY/DISPONIBILITÉ:	On a restricted basis: availability determined on the basis of individual research proposal submitted in writing to the Post-Secondary Research Reference Committee.

SUMMARY/RÉSUMÉ: This data file relates to a post-secondary demand and enrolment study initiated by the University Grants Commission of the Province of Manitoba to obtain information on the profile, intentions, plans and aspirations of grade 12 students graduating in 1972. These data were collected on a random sample of 306 students selected from respondents to the February survey who had definite plans to continue their education, for the purpose of determining whether the students' choices of institutions, faculties and programmes had changed.

INDEX TERMS/TERMES-INDEX: Manitoba
Secondary school students Etudiants, école secondaire
Education plans Projets d'éducation Students' aspirations
Aspirations des étudiants Aspirations

Abstract: Original Survey Tool Developed By. B. Hoffman, December 1971(C) Number № 4313

1972 TWELFTH GRADE SURVEY

NOTE: What are the immediate and long range plans of Manitoba's 12th grade students? How definite are your plans and what alternatives would you consider? What has influenced your choices and have you received the preparation in secondary school desired? The 12th graders contacted by us in Winnipeg and in an earlier survey of 1,300 Western Manitoba students suggest some of the following questions are relevant.

DIRECTIONS: Use pencil or pen. Erase clearly any answers you wish to change.

O (left blank) means Does Not apply to me

● (filled in) Applies to me

_____(left blank) means Does Not apply to me

With Response (filled in) Applies to me

PLANS AND ALTERNATIVES

In the coming (a) summer, (b) next year, following graduation from high school what is your best guess as to the chances that you will:

(fill in one each row (a) and (b))	(a) Summer: No Chance	Very Little Chance	Some Chance	Very Good Chance	(b) Next Year: No Chance	Very Little Chance	Some Chance	Very Good Chance
Get married	●	O	O	O	O	●	O	O
Help at home for 1 year	●	O	O	O	●	O	O	O
Obtain a full-time job	O	O	O	●	O	O	O	●
Work part-time	O	O	●	O	●	O	O	O
Do odd jobs	O	O	●	O	●	O	O	O
Change career choice	O	O	●	O	O	●	O	O
Travel extensively	O	O	●	O	●	O	O	O
Start new life-style	O	●	O	O	●	O	O	O
Do nothing special	●	O	O	O	O	●	O	O
Join military	●	O	O	O	●	O	O	O
Join Opportunity for Youth	O	●	O	O	O	O	O	O
Enroll Manpower Training	O	O	●	O	O	O	O	O
Go to Community College	O	O	●	O	O	●	O	O
Go to University	●	O	O	O	●	O	O	O
Go to Business College	●	O	O	O	O	O	●	O
Go to other Technical Institute	●	O	O	O	O	O	●	O
Other _____	O	O	●	O	O	●	O	O

1. My immediate plans as reflected in question 1 (a) and (b) are: (mark one)
   - O reasonable definite
   - O tentative
   - ● quite uncertain

2. **Do you have any concern about your ability to finance your plans?** (Mark one)

None (I am confident that I will have sufficient funds)----------O

Some concern (but I will probably have enough funds) ----------●

Major concern (not sure I will be able to)----------O

*The major area of innovation by the author is located on page three and the Impact Events. These Impact Events were considered important by the author based upon his work with participant simulation games at the Ontario Institute for Studies in Education (1970-1971) and the realization that future events might have their impact approximated in this way in a questionnaire. The Impact Events were found to be highly significant determinatns in the students decisions and have continued to be a major part of the methodology during the next ten years.

1. INFLUENCED MY PLANS

● = Minor or Major Influence

O = Unimportant or absent influence

(a) The following individuals have influenced my plans.

Minor	Major	
●	O	Friends
O	●	Parent or other relative
●	O	High school teacher
●	O	Counsellor
●	O	High School graduate
●	O	Employer I have met
●	O	Professional person I have met
●	O	Religious leader
●	O	Other _____

(b) The following factors related to my high school activities and have influenced my decision.

Minor	Major	
●	O	I participated in activities which have future usefulness for me.
O	●	I have been prepared with skills for seeking immediate employment.
●	O	I have had personal contact with representatives of higher educational institutions.
●	O	I have received adequate information about financial aid programs.
●	O	I have received adequate information about opportunities for continued training and education.
●	O	I have been well prepared for continued schooling beyond high school.
●	O	Someone expressed personal interest in my program and plans while in high school.
●	O	I had counselling service available to me while in high school.
O	●	Someone assisted me in finding employment after high school.
●	O	Other _____

(c) The following circumstances have influenced my decisions:

Minor	Major	
●	O	Athletic - recreational program
●	O	Social life
●	O	New life styles
O	●	Opportunity to live away from home
●	O	Low cost of this plan
●	O	Reputation of the organization
●	O	Religious relationship
●	O	Other _____

3. IMPACT EVENTS

Indicate how much effect, if any, the following events would have on your plans:

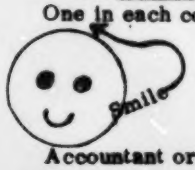
(Mark one) →	● No Change	○ Very Little Change	○ Some Change	○ Major Change
1. Offered good paying job for all next year	○	○	○	●
2. Unable to find employment during summer months	○	●	○	○
3. Prospect of employment next year even part-time appears slim	○	●	○	○
4. A major surplus and unemployment of trained personnel appears in your career area	○	○	○	●
5. Your best friend changes his or her plans	○	○	●	○
6. Serious illness - financial support from family is unavailable	●	○	○	○
7. Travel:				
(a) Very low cost summer travel	○	○	●	○
(b) Low cost travel all next year	○	○	○	●
8. INNOVATIVE EMPLOYMENT AND COMMUNITY SERVICE PROGRAMS				
(a) Environmental clean-up in the forests (minimum wage)	●	○	○	○
(b) Environmental clean-up in the cities (minimum wage)	●	○	○	○
(c) Community Assistance (minimum wage)	○	●	○	○
(d) Working with northern peoples (Minimum wage)	●	○	○	○
(e) Summer recreational program	○	●	○	○
(f) Summer recreational program for young people outside school (minimum wage)	○	●	○	○
(g) Year round recreational & cultural program for young people (outside school)	○	●	○	○
(h) Research Work (minimum wage)	●	○	○	○
* - (i) Opportunity Bank start-up capital to assist youth to go into				

business ----------O ---------- O---------O ---------O

* - (j) Educational Financing long term deferred loans ---------- O ---------- O ---------- O -------- O

*- Definition (i) and (j): Both the Opportunity Bank and Educational Financing refer to providing funds now but repaid later when the business or personal income reaches satisfactory levels. Some proposals would cancel the debt in the advent that the business or personal income does not reach desired levels.

4. If this listing of occupational groupings does not contain your choice please use the "other" category. Fill in only six ● on this page



One in each column

	EXPECTATIONS		ASPIRATIONS		Present or Last Occupation	
	Your 1st choice Occupation	Your Second Choice	If I could I'd Become	Best Friend's Probable Career	Your Father's Occupation	Your Mother's Occupation
Accountant or actuary	O	O	O	O	O	O
Actor or entertainer	O	O	O	O	O	O
Architect	O	O	O	O	O	O
Artist	O	O	O	O	O	O
Auto Repairs & Service	O	O	O	O	O	O
Aviation	O	O	O	O	O	O
Barbering	O	O	O	O	O	O
Business (clerical)	●	O	O	O	O	O
Business executive, (management administrator)	O	O	O	O	O	O
Business owner or proprietor	O	O	O	O	O	O
Business salesman or buyer	O	O	O	O	O	O
Beautician	O	O	O	O	O	O
Carpenter	O	O	O	O	O	O
Chemical Technician	O	O	O	O	O	O
Child Care(Nursery school)	O	O	O	O	O	O
Civil Service	O	O	O	O	O	O
Clergyman(minister, priest)	O	O	O	O	O	O
Clergy (other religion)	O	O	O	O	O	O
Clinical psychologist	O	O	O	O	O	O
College teacher	O	O	O	O	O	O
Computer programmer	O	O	O	O	O	O
Conservationist	O	O	O	O	O	O
Dentist (including orthodontist	O	O	O	O	O	O
Dietitian or home economist	O	O	O	O	O	O
Drafting	O	O	O	O	O	O
Electrical	O	O	O	O	O	O
Electronics	O	O	O	O	O	O
Engineer	O	O	O	O	O	O
Farmer or rancher	O	O	O	●	●	O
Foreign service worker (including diplomat)	O	O	O	O	O	O
Forester	O	O	O	O	O	O
Housewife	O	O	O	O	O	●
Hydraulics	O	O	O	O	O	O
Industrial Supervision	O	O	O	O	O	O
Interior decorator (incl. design)	O	O	O	O	O	O
Interpreter(translator)	O	O	O	O	O	O
Lab. technician or hygienist	O	O	O	O	O	O
Law enforcement officer	O	O	O	O	O	O
Lawyer (attorney)	O	O	O	O	O	O
Military service(career)	O	O	O	O	O	O
Millwright	O	O	O	O	O	O
Musician(performer, composer)	O	O	O	O	O	O
Nurse	O	O	O	O	O	O
Optometrist	O	O	O	O	O	O
Pharmacist	O	O	O	O	O	O
Physician	O	O	O	O	O	O
Plumbing	O	O	O	O	O	O
Quality Control	O	O	O	O	O	O
Radio	O	O	O	O	O	O
Recreation	O	O	O	O	O	O
Refrigeration	O	O	O	O	O	O
School counselor	O	O	O	O	O	O
School principal or superintendent	O	O	O	O	O	O
Scientific researcher	O	O	O	O	O	O

Sheetmetal	0	0	0	0	0	0
Social Worker	0	0	0	0	0	0
Statistician	0	0	0	0	0	0
Stewardess	0	0	0	0	0	0
Town Planning	0	0	0	0	0	0
T.V. Repair & Service	0	0	0	0	0	0
Therapist (physical, occupational, speech)	0	0	0	0	0	0
Teacher	0	0	0	0	0	0
Veterinarian	0	0	0	0	0	0
Writer or journalist	0	0	0	0	0	0
Waitress	0	0	0	0	0	0
Welding	0	0	0	0	0	0
Skilled trades	0	0	0	0	0	0
Other	0	0	0	0	0	0
Undecided	0	0	0	0	0	0
Unemployed	0	0	0	0	0	0

OBJECTIVES AND TARGET GROUPS

PDEM-II

POST-SECONDARY DEMAND AND ENROLMENT MODEL II

October 6, 1975

Post-Secondary Research Reference Committee Executive:

B. Hoffman	-	Universities Grants Commission
J. Nykoluk	-	Community Colleges Division, Colleges and Universities Affairs.
R. Kleiman	-	Student Aid Division, Colleges and Universities Affairs

PDEM II

A. OBJECTIVES.

1. Main objectives of the PDEM-II project are to build an operational tool for Secondary and Post-Secondary planners which will:

   (a) forecast post-secondary enrolments for 3 years forward,

   (b) allow for the simulation of policy decision variables to assess their probabilistic impact on post-secondary education.

2. Specific objectives are:

   (a) provide information on the shifts in student preferences for post-secondary education.

   (b) develop profile characteristics of individuals based on various states - going, going impacted, undecided, not going, etc., and on preferred options in (a).

   (c) provide information on barriers, real or potential, to post-secondary education.

   (d) provide information on the educational background of students wishing to enter post-secondary education but who are not, in order to identify the need for adjustment by post-secondary institutions to accommodate such students.

   (e) assess the timing when interested students would like to enter post-secondary education.

   (f) provide information on the Manitoba Student Aid program with respect to:
   - characteristics of financially impacted students
   - distribution of demand for student aid
   - awareness of student aid

   (g) to describe the adequacy of the counselling services from the students' perspective.

   (h) to establish and chart shifts in the groups of individuals influencing the plans of students.

Based on these objectives then, PDEM-II was to be a comprehensive model, an extension of PDEM-I, built from a base of experience and knowledge developed during the 1972-73 R and D and field testing and 1974-75 evaluation of PDEM-I, but a new model, modified and changed according to a new set of priorities.

B. TARGET GROUPS

1. Grade Twelve Sample

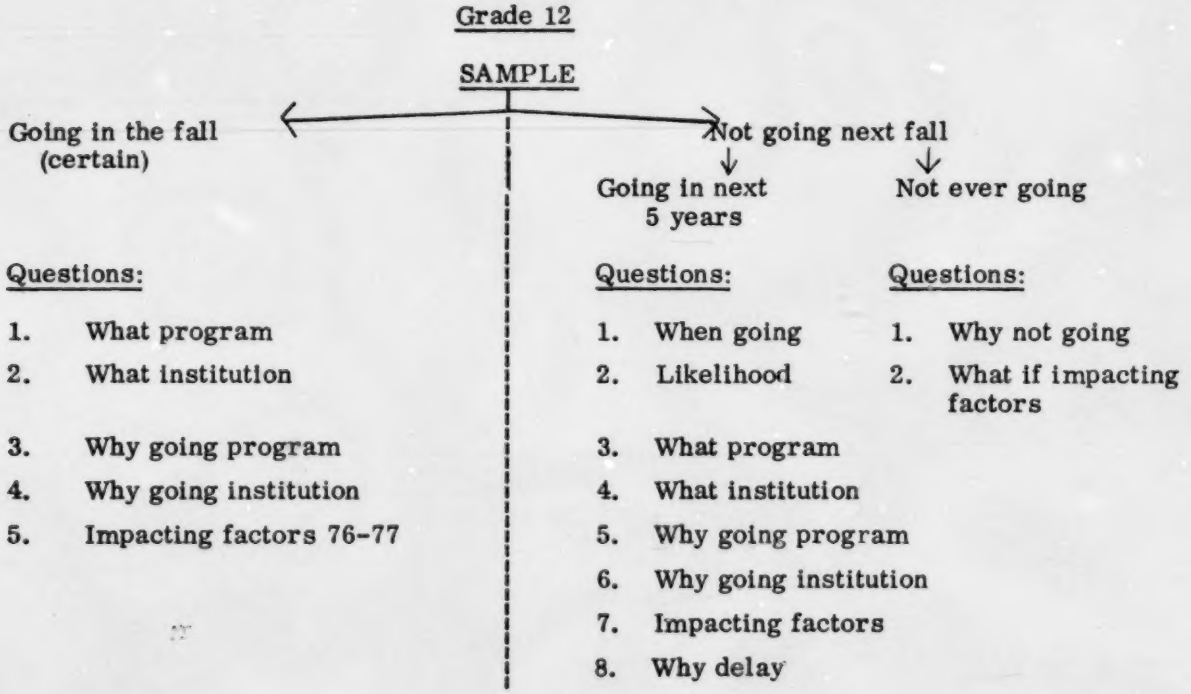
An analysis of the questionnaire first requires an identification of the groups who will be surveyed and a 'mapping' of the key questions we want to ask each of these groups in order to meet the objectives in A.

The following figure indicates that there are three groups of students that will be identified and about which we require information:

(a) those students that are certain of going on to post-secondary education in the fall, 1976.

(b) those students who are not going on in the fall, 1976 but plan to enter post-secondary education within the next five years.

(c) those students who indicate that they are never going to post-secondary education.



GRADE 10, 11 SAMPLE

Going to Post-Secondary	Delay Goint to Post-Secondary	Not Going	Not Finish High School
1. What program	1. Why delay	1. Why	1. Why
2. What institution	2. When going	2. What will they do	2. What will they do
3. Influence factors	3. What program	3. What if factors	3. What if factors
4. Why institution	4. What institution		4. Student Aid Secondary Program
5. Why program	5. What will do between high school & P/S		
6. Why go to university	6. What if factors		
7. Why go to c. c.	7. Why go to university		
	8. Why go to c. c.		

General questions to be answered by all groups - Grades 10, 11 and 12.

1. Post-Secondary aspirations of parents
2. Academic ability
3. Aspirations
4. Family income
5. Change in program during high school
6. Shifts in decision-making in process between Grade 10 and 12